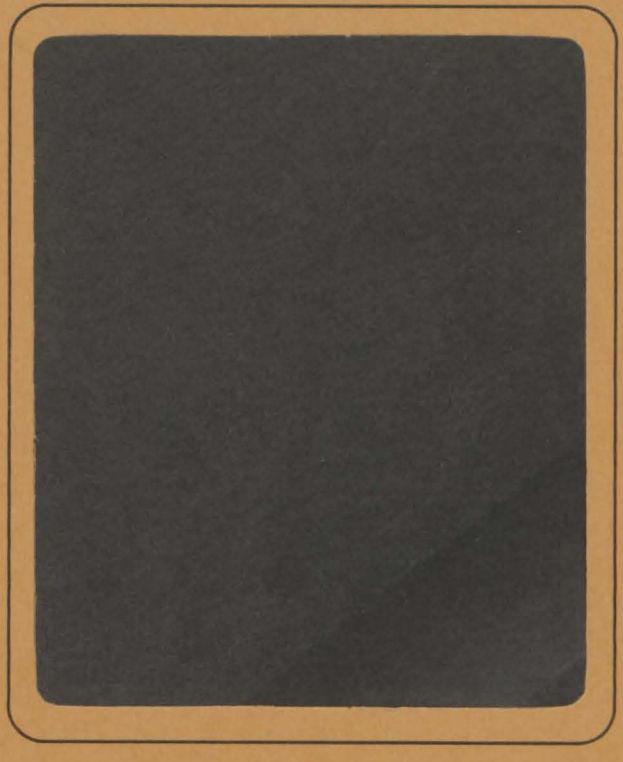

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IMPACT OF BRANCH BANKING ON COMMERCIAL CREDIT IN NONMETROPOLITAN AREAS

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INTRODUCTION

When branch banking is widely prevalent within a state, the share of all bank loans and leases going to commercial and industrial projects is larger. This conclusion is supported by analysis of lending data for banks in eight states of the northwest in 1987. Of these states, four have statewide branching (Idaho, Oregon, South Dakota, and Washington) and four have non-prevalent branching or unitary banking (Iowa, Minnesota, North Dakota, and Montana). While our results can explain only a small portion of the variation in the share of commercial and industrial lending, the contribution of branching is positive and significant.

Additional findings in this study support the argument that laws that allow branch banking encourage more commercial and agricultural lending in nonmetropolitan counties. Because of limitations in the available data, the relative impact of branching laws on differences in metropolitan and nonmetropolitan lending patterns is difficult to determine (data on lending activity is available only at the headquarter banks of branching institutions; the only data available on individual branches concern deposits). In this study we use a proxy variable, the share of total deposits held by individual branches, to indicate the economic presence of branch banks in nonmetropolitan counties of six states (North and South Dakota, Minnesota, Montana, Washington and Iowa).

Our results show that branching laws are positively related to more commercial-plus-agricultural lending by nonmetropolitan unit banks while the branching share of deposits is negatively related and softens the impact attributable to branching laws. An explanation for these findings, one that is supported by the literature, holds that branching stimulates local competition and total share of commercial-plus-agricultural lending. At the same time, branches compete with unit banks in local markets and, the greater the presence of branches, the smaller the net additional increase in new loans held by unit banks.

The positive impact of branching on commercial credit lends support to the hypothesis that under branching, banks have relatively lower cost or lower risk in the analysis of potential

commercial projects. Thus branches would be somewhat more likely to lend their assets to commercial borrowers than to put these assets into other uses (eg., consumer credit, real estate loans, loans to depository institutions, obligations of states and political subdivisions, lease financing, and other loans.)

A review of the literature on the impact of branch banking is contained in the next section of this paper. This literature argues that branch banks may provide slightly more commercial credit in growing rural areas than unit banks; that branching has some cost advantage over restrictions; and that the efficiencies associated with branching are small. The following section of the paper presents the analysis of commercial lending activities in the eight states and finds a small, positive impact related to statewide branching. The final section of the paper presents conclusions about new policy to deregulate banking activity.

I. WHY BRANCHING MATTERS

Our concern in this project is to understand the extent to which credit for small business projects is made available by banks in nonmetropolitan areas.[1] The regulation of branch banking is the major tool available to these states to influence the spatial distribution of banking activity, including commercial lending. Thus, our primary concern is to discover if branching appears to change the relative spatial availability of commercial credit across the eight states.

Branching does appear to influence the portfolios and profitability of banks of different sizes and at various locations. This section of the paper contains a brief description of branch banking and a review of the literature on the effect of branching on commercial credit.

Branch and Unit Banks in Rural Areas --

States may choose to regulate the intrastate branching of banks and the federal government regulates interstate branching. Regulation of intrastate branch banking is intended to affect the intrastate spatial distribution of banking activity. Because small businesses usually borrow locally, the supply of bank credit to small businesses in rural areas may be altered by branching.

Branch banking occurs when a single bank is allowed to have one or more full service offices at separate locations. Each state determines the extent and kind of branching that it will

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[1] In particular, the eight states of the Northwest Area Foundation region: Minnesota, Iowa, North and South Dakota, Montana, Idaho, Oregon, and Washington.

permit. As shown in Table 1, twenty-seven states allow unlimited branch banking including Idaho, Oregon, South Dakota, and Washington. Iowa, Minnesota, North Dakota, and seventeen other states permit limited branching with geographical limitations on the locations of branches or, sometimes, with limitations on how branching is achieved. (Appendix A contains a brief description of the branch banking laws in the NWAF region.) For example, North Dakota allows branching through mergers and consolidation of certain existing banks[2]; the state does not allow de novo branching (i.e., through creation of new banks). Three states, Montana, Colorado, and Wyoming, prohibit branch banking in any form.[3]

Banks that are not part of a branch banking firm are "unit" banks that either are independently owned or affiliates of a multi-bank holding company, MBHC. A MBHC owns two or more banks, each of which is operated as a separate banking firm. All states have some banks that are owned by MBHCs. In addition, units, branches, and affiliates can have physically detached "facilities" that provide limited banking services.

Federal regulations affect branch banking across states. Under the Garn-St. Germaine Act of 1982, interstate branching is permitted only under reciprocal two-state arrangements approved by both states. Minnesota, for example, now allows bank holding companies from Wisconsin, Iowa, and North and South Dakota to acquire banks within the state, provided they allow Minnesota's holding companies similarly to acquire banks in their states. However, only Wisconsin has approved such a reciprocity arrangement with Minnesota.[4]

Review of the Literature Regarding Branching --

The review of the literature on branch banking is divided into three parts. The first compares branch and unit banks in rural areas and argues that branch banks may provide more commercial credit than unit banks in growing rural areas. The second section presents discussion of the competitiveness of branch and unit banks and concludes that there are some advantages associated with branch bank offices. These advantages could translate into lower costs in rural communities and greater production of banking products, possibly including commercial

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[2] Only existing banks that are owned by a multibank holding company are allowed to merge and branch. Minneapolis Federal Reserve, "Regional Recap," THE REGION August 1987, p. 18.

[3] Conference of State Bank Supervisors, Washington D.C., June 30, 1988.

[4] Minneapolis Federal Reserve Bank, op cit.

loans. The extent of efficiencies associated with branching is small. The third section concerns the possible gains from a policy change to allow unlimited branching in limited branching states.

Branch and Unit Banks in Rural Areas

Commercial credit is more restricted in nonmetropolitan than metropolitan areas and regulation of banking may affect the lending activity and/or location of rural banks. Small, independent businesses are often confined to local capital sources.[5] While the market for most financial services is national in scope, there may be unfilled credit demands in rural areas where information costs for lenders remain high and where relatively few lenders have the physical presence that is important to evaluating a borrower, the project, and the borrower's collateral.[6] In addition, certain capital market imperfections may particularly affect credit available to small businesses in nonmetropolitan areas.[7] These imperfections result from incomplete information, excess capacity, and other externalities.

Branch banking poses both positive and negative incentives for the supply of local commercial credit. Branching can increase commercial credit in nonmetropolitan areas because branches are in a better position to spread the costs of local commercial lending across the whole bank. On the other hand, branching can reduce local credit because branches are in a better position to transfer assets to non-local markets. Of these two effects, it is not a priori clear which will predominate.

The differences in activity between urban and non-urban banks are mostly accounted for by differences in bank size; small and medium sized banks show similar characteristics no matter where they are located. Rural banks tend to be small (although not all rurals are small and many small banks are located in

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[5] Daniel L. Milkove and Patrick J. Sullivan, "Financial Aid Programs as a Component of Economic Development Strategy," Ch 14, RURAL ECONOMIC DEVELOPMENT IN THE 1980's: PREPARING FOR THE FUTURE, U.S. Dept of Agriculture, ERS Staff Report No. AGES870724.

[6] Harvey Rosenbloom, "The Changing Nature of Financial Markets and the Implications for Credit Flows in Rural Areas," in RURAL FINANCIAL MARKETS RESEARCH ISSUES FOR THE 1980s, PROCEEDINGS, Federal Reserve Bank of Chicago, Dec 9 & 10, 1982.

[7] Julia Friedman, "Credit Rationing in Nonmetropolitan Markets for Small Business Loans," Working Paper Number 88-02, State and Regional Research Center, University of Minnesota, 1988.

urban areas). Very small banks -- with assets less that $15 million -- tend to have poor return on assets no matter where they are located. The economies of scale that may result from branching could endanger these very small banks.[8] Somewhat larger (but still small) banks have relatively high profits,[9] with return on assets generally falling as bank size increases.

Small banks are more conservative lenders than large banks, with safer asset portfolios, fewer borrowed reserves, and larger ratios of time to demand deposits.[10] Rural banks are no more conservative than urban banks of the same size. However, because the share of bank assets held by small banks is much larger in rural areas (77.4 percent vs. 10.7 percent for urban areas),[11] conservative banking is more likely in rural areas.

In unit bank states, conservatism is more likely because the number of very large unit banks is small. The ability of a bank to grow depends upon equity capital which, in turn, depends partly on the ability to attract new deposits. A unit bank may be less able to provide multiple convenient locations for customers, hence is less likely to draw rapidly growing volumes of deposits. Unit banks must count relatively more on borrowed reserves to back their lending activities and growth. However, units also are more likely to stress commercial lending within their portfolios because these banks have fewer offices to handle consumer loan applications.[12]

Small branch banks may lend more locally than small units because branches can more readily share the risks and costs of lending. Two opposing forces determine the average cost of commercial lending to a bank. The direct cost of a commercial loan varies little with the size of the loan. Average cost, therefore, is lower if the loan itself is larger. Larger loans, however, mean less portfolio diversity for the bank and greater risk. This risk brings greater indirect cost. To reduce portfolio risk and associated costs, small banks may join in some co-operative lending effort; possibly, branch banks are in a

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[8]Daniel L. Milkove, DO BANK SIZE AND METRO-NOMETRO LOCATION AFFECT BANK BEHAVIOR? USDA/ERS, Rural Research Development Report No. 47, Washington D.C., USGOP, April 1985.

[9] Fraser and Kolari, op cit.

[10]Ibid.

[11]Milkove, op cit.

[12]Daniel Milkove, "Are Rural Banks Different or Just Small?", RURAL DEVELOPMENT PERSPECTIVES, Vol 2, No. 1, October 1985, pp. 10-15.

better position to create co-operative packages by "joint" lending from the home office. Alternatively, a small bank can simply avoid commercial loans altogether.[13]

Further, banks in rural areas often are relatively isolated in the undiversified local market. Because the local economy may depend on a single sector or a few key businesses, there is a linkage of risk among all local loans in the bank's portfolio, including commercial, agricultural, real estate, and consumer loans. This greater risk attached to all local loans provides an incentive for unit banks to structure their portfolios to hold fewer local loans.[14]

Due to the linked-risk in local markets, small banks may lend relatively large shares of local assets to larger metropolitan banks. Rural branch banks are highly integrated with larger, urban banks and the flow of loanable funds can be very fluid within this integrated structure. Rural unit banks also funnel funds to larger, urban banks although the process may be less automatic than for more vertically integrated banks.[15] Rural banks avoid the risk associated with heavy lending in undiversified local markets by substituting 1) lower-risk loans to larger banks, 2) government securities, and 3) corporate securities for local lending. Also small banks base more lending on their deposits than large banks -- small banks often have more stable deposits, with larger ratios of time-deposits to demand-deposits than larger banks. Thus small rural banks tend to transfer local savings to larger banks.[16]

Because funds flow easily with a branching system, branch banks are thought to provide more local credit than unit banks in high-demand rural areas. A study of rural banks in Arizona, an unlimited branching state, and rural banks in Colorado, a unit banking state, shows that loan-to-deposit ratios are positively correlated with local population in both states. On average,

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[13] Charles W. Haley, "Diversification Benefits and Economies of Scale in Loan Portfolios," BANK STRUCTURE AND COMPETITION, Federal Reserve of Chicago, May 1983.

[14] James J. Mikesell and Steven Davidson, "Financing Rural America: A Public Policy and Research Perspective," RURAL FINANCIAL MARKETS: RESEARCH ISSUES FOR THE 1980s, PROCEEDINGS, Federal Reserve of Chicago, Dec 9 & 10, 1982.

[15] Constance R. Dunham, "Interstate BAnking and the Outflow of Local Funds," NEW ENGLAND ECONOMIC REVIEW, Mar/Ap 1986, pp. 7-19.

[16] Donald R. Fraser and James W. Kolari, THE FUTURE OF SMALL BANKS IN A DEREGULATED ENVIRONMENT, Ballinger, Cambridge Mass, 1985, Chapter 4, Adjustment of Small Banks: The Last Two Decades.

Arizona's rural branches had larger variance in lending and lent more than Colorado's unit banks in faster growing areas and less in areas with low or negative growth. Even though branch banks approve proportionately more loans to non-local parties, they also lend more of their assets than unit banks when local demand is strong.[17]

Branch Banking and Competitiveness

Does branch banking encourage or diminish competitiveness and efficiency within a state's banking system? If the system is more competitive, then a greater loan volume can be provided at lower interest rates. The predominant view in the literature is that branching improves competitiveness and may reduce costs. However, the greater concentration of banking activity within a smaller number of institutions is correlated with higher profits that, arguably, could result from exercise of monopoly power as well as from greater production efficiency.

Even in states that prohibit complete branching, the banking industry is highly integrated through the activities of MBHCs. In Minnesota, higher profits have accrued to unit banks affiliated with MBHCs than to independently owned unit banks. The source of these greater profits, however, appears to be greater competitiveness in the pricing policy and services offered by affiliated banks. That is, large banks are believed to have cost and service advantages that lead to greater profits. In support of this argument researchers find that, while affiliates have earned more profit than units, large rural unit banks in counties with no affiliated banks have been the most profitable rural banks in Minnesota.[18]

Economies of scale in the banking industry will determine the efficient size of banking firm, i.e., the size at which average costs are minimized. Both unit banks and individual branch offices experience economies of scale at small sizes. The merger of two or more small unit banks into branches of the same firm probably does not reduce production costs, however, and there appear to be no overall economies for the branch banking firm.

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[17]David L. Barkley, Glenn T. Potts, and Cindy Mellon, "Effects of Banking Structure on the Allocation of Credit to Nonmetropolitan Communities," WESTERN JOURNAL OF AGRICULTURAL ECONOMICS, Vol 9, No. 2, Dec 1984, pp. 283-92.

[18] Arthur Rolnick, David S. Dahl, and Stanley L. Graham, "Looking for Evidence of Noncompetitive Behavior in Minnesota's Banking Industry," QUARTERLY REVIEW, Federal Reserve Bank of Minneapolis, Fall 1977, Vol. 1, No. 2, pp. 1-7.

Branch offices experience scale economies up to a size of about $100 million in deposits (1978 dollars; $185 million in 1988 dollars), at larger sizes average costs stay about the same or increase up to about $1 billion in size.[19] It is not known if very large banks with deposits of over $1 billion have economies or diseconomies of scale. However, while a branch of $100 million in deposits has economies of scale, two or more branches of a single bank of the same size probably do not have the same cost advantages. Some research finds no significant scale economies for banking firms that have branches;[20] other work finds diseconomies of scale (increasing average costs) for branching firms over $25 million in size.[21] The basic conclusion is that branching at best is cost neutral and perhaps is costly. "This finding is, in fact, consistent with the presence of economies of scale at the branch level since an increase in the number of branches, holding bank output constant, also implies a decrease in average branch size."[22]

Unit banks experience much the same scale economies as branch offices. Average costs fall as very small banks grow.[23] Economies are exhausted after $25 million to $50 million[24] size is reached (1978 dollars).

Some economies of scope are observed for branch banks; none have been shown to exist in unit banks. Economies of scope occur when the cost of producing an extra unit of one output declines with the increased production of another output by the same firm. Branch banks show marginal cost reducing interaction between time deposits and real estate loans, so that as either activity increases the cost of the other decreases. Commercial lending does not generate scope economies and there are no demonstrated

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[19]George J. Benston, Allen N. Berger, Gerald A. Hanweck, and David B. Humphrey, "Economies of Scale and Scope in Banking," BANK STRUCTURE AND COMPETITION, Federal Reserve Bank of Chicago, May 1983.

[20]Ibid.

[21]George J. Benston, Gerald A. Hanweck, and Daniel Humphrey, "Operating Costs in Banking," ECONOMIC REVIEW, Federal Reserve Bank of Atlanta, Vol 67, Nov 1982, pp. 6-21.

[22]Richard W. Nelson, "Economies of Scale vs. Regulation as Determinants of U.S. Banking Structure, BANK STRUCTURE AND COMPETITION, Federal Reserve Bank of Chicago, May 1983.

[23]Benston, Hanaweck, and Humphrey, op cit.

[24]Benston, Berger, Hanweck, and Humphrey, op cit.

natural monopoly benefits to banks in business lending.[25] Thus, banking's pre-eminence as the major source of credit to small business borrowers does not arise from joint efficiencies associated with the production of commercial loans and other bank products.

If consumers want to bank at two or more locations -- eg. at home and at work, or at the locations of two or more business offices of the same company -- branches may have a cost advantage in providing this service.[26] Ready access to two or more locations is a type of "convenience" for which consumers have a positive demand and which branches can provide in greater variety and lower cost than unit banks. So long as consumers have a downward sloping demand for convenience, they may select branch banks over other banks, cet. par.

The Impact of Unlimited Branching

In a unit banking or limited branching state, a policy change to allow unlimited branching could result either in 1) consolidation and merger of existing banks or in 2) creation of new banking offices. The scale and scope arguments imply that the efficiency gain from allowing unit banks to merge and branch is limited. Gains would result from a greater physical presence of the bank, permitting potential growth in deposits that could be directed to certain branch offices. These offices, perhaps located in more rapidly developing rural communities, could then have a cost advantage over very small unit banks, particularly in the production of time deposits and real estate loans. This advantage appears to be sufficient for branches to locate in rural areas when possible. In statewide branching states, 66 percent of the banks are headquartered in metropolitan counties; in unit banking and limited branching states, only 40 percent are headquartered in metropolitan counties. According to Milkove, "the difference suggests that branch banks have entered rural markets where they can."[27]

Branch banks may also compete with independent banks through new branch office starts, or de novo banking. Analysts argue that branching can make local banks more efficient even if a new branch does not actually enter and increase the number of local competitors. The simple authorization of branching is said to create a greater potential for entry and competition, thus

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[25] Ibid.

[26] Richard W. Nelson, op cit.

[27] Daniel Milkove, October 1985, op cit., p. 14.

encouraging existing banks to keep prices low and service quality high to discourage new entries.[28]

II. ANALYSIS OF BANKING ACTIVITY IN AN EIGHT-STATE AREA

In this study we describe the distribution of banking activity among metropolitan and nonmetropolitan areas of Idaho, Iowa, Minnesota, Montana, North Dakota, Oregon, South Dakota, and Washington. Further, we attempt to test for any statistically verifiable difference in commercial credit in nonmetropolitan areas that is attributable to branch banking laws.

Procedures --

Market area

The geographic market for this study has been assumed to be either the county or metropolitan statistical area (MSA).[29] This area should be large enough to contain the bulk of banking activity. The data used in this study are collected on a county-wide basis and, when counties are part of an MSA, the data are aggregated. Rural counties and and MSAs are treated as the geographic market for banking services, following common practice. Hence, a significant share of bank lending is assumed to be for projects in the county or MSA where the bank is located.

In rural areas, the county may understate the true market area. The Minneapolis Federal Reserve uses a study of bank market areas that contains roughly one-half as many bank market areas for Minnesota as the number of MSAs and nonmetropolitan counties. We did not adopt these same market areas because they use intra-county boundaries that make our data unacceptable.

If the Federal Reserve's approach is more accurate, then non-metropolitan banks lend more heavily in neighboring counties than anticipated by our approach. However, the loans of small rural banks especially tend to be closely linked to local markets, and most rural banks are small. The average size bank in 97 percent of the nonmetropolitan counties in our study region, has assets of less than $100 million. For these

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[28] Gary Whalen, "Competition and Bank Profitability: Recent Evidence," ECONOMIC COMMENTARY, Federal Reserve BAnk of Cleveland, Nov 1, 1986.

[29] An MSA is usually a multi-county region with at least one city of at least 50,000 people, at least 75% non-agricultural employment, and at least 15% of workers reside and work in the area. Statistical information is often gathered and reported by MSAs.

counties, the relative discrepancy between total commercial loans and lending to local commercial enterprises is not likely to be large. While our broader market definition is probably adequate for this study, it may be worthwhile to investigate commercial credit availability using an alternative market definition with other data.

The data and variables

Regional banking activity as measured by the level of commercial lending, depends on a number of factors. Among these are the number of banks and the concentration of banking activity. In addition, banking activity may be predicted on the basis of both internal factors (e.g., average size, number or concentration of banks) and external factors (e.g., per capita income, population density, deposits per capita). Finally, the distribution of banking activity may depend on the presence or absence of different branch banking laws.

Measuring the spatial availability of commercial credit is difficult. While banks regularly report commercial lending, these figures do not tell where the loan proceeds are used or how difficult it is for the business to obtain the loan. A bank in a rural area could lend to commercial ventures in metropolitan areas; similarly rural businesses can get their credit from urban banks and other lenders.

The analysis in this study concerns internal and external factors expected to give rise to differences in the spatial distribution of commercial loans made by banks. Internal factors relate to activity within the banking industry. For example, the size of banks may be an indicator of aggressive commercial lending activity, with smaller banks expected to show preference for safer lending options. The number or concentration of banks in a market area may also indicate aggressive behavior, with more concentrated markets less actively bidding for commercial borrowers. An alternative line of argument, however, holds that markets become concentrated because of aggressive and successful lending activity.

Branch banking laws may influence the internal structure of banking. The impact of branching can be felt through 1) reduced costs of evaluating projects -- encouraging commercial lending in non-metropolitan areas -- and 2) reduced costs of transferring rural savings to outside activities -- potentially discouraging commercial lending in local areas. Thus, a priori it is not clear how branching may affect the supply of commercial credit in nonmetropolitan areas.

External factors involve economic influences beyond the control of banks. For example the level of activity and diversity of the local economy, the local rate of economic and

population growth, deposits per capita, population density, access by local commercial ventures to markets, and other variables may all influence bank lending behavior.

The distinction between internal and external factors is important for policy formation as well as for "explaining" the spatial aspects of commercial lending. If internal factors are primarily responsible for spatial credit differences, then policy can attempt to influence the structure of the banking industry so as to increase the flow of commercial credit. If external factors are primarily responsible, policy might be directed to general economic development of an area. If this economic development proceeds, supplies of commercial credit would increase as well.

Internal variables: Concentration -- The Herfindahl Index is a measure of concentration of business activity, calculated by the sum of the square of firm market shares. Taking on values between 0 and 10,000, it attempts to show whether a few firms dominate a relatively large share of total activity among similar businesses in the local market. Values less than 1,000 are considered to be unconcentrated, moderate concentration between 1,000 and 1,800 and highly concentrated for values over 1,800.[30] High levels of concentration in a given market area might indicate less competitive pressure on the banks in that area.

Herfindahl indices were calculated for all MSAs and counties in the eight state region. They are reported in Appendix B. In a branch banking state we would expect greater concentration levels than in non-branching or limited branching states because two or more branches in a single area are part of the same bank.

Internal variables: Branch Share of deposits -- Another factor that may affect local banking activity is the economic presence established by branch banks in nonmetropolitan areas. As is argued in section I above, branches are believed to have entered rural markets where possible, to take advantage of competitive, scale, or other opportunities. The branch share of deposits attempts to measure the extent of the branching "presence" in an area.

The metropolitan-nonmetropolitan distribution of commercial credit, a subset of all banking activities, should depend primarily on spatial differences in loan profitability. In the analysis in this study, we expect to see more commercial credit in areas where a banker would perceive less risk of default, i.e.

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[30]U.S. Department of Justice "1984 Merger Guidelines", Memorandum of June 14, 1984.

presumably in more diversified areas and areas with growing commercial opportunities. However, commercial credit may be more available in all areas if lending institutions have better risk assessment tools. If, for example, branch banks have lower internal costs for assessing commercial projects, branching is expected to result in a larger share of commercial loans.

Share of deposits by branches was calculated on a county-wide (or MSA-wide) basis, using data from Data Book - Operating Banks and Branches, as well as other public information collected by the FDIC. It is the proportion of deposits held by branches or branch offices to total deposits in the area. No attempt is made to distinguish between a branch office and the branch headquarters in calculating this ratio.

If there is more commercial credit in branching states, it is not necessarily true that there is also a larger share of branch deposits. Information on branch deposits is available by county; all other information for the branches is collected only at the headquarters. Therefore, the amount of commercial credit provided by branches in each rural county is unknown. Further, the amount of commercial credit in a headquarters county or MSA may be overstated. While the bias in the branch-share-of-deposit variable is a potential problem, it nevertheless is the only variable that measures local branching activity.

The data used in this study are described below according to 1) dependent and internal variables and 2) external variables. The data have been grouped by county or MSA within a state.

Dependent Variables -- The dependent variables reflect the relative amount of commercial lending by banks. Several choices of data are available, including Commercial and Industrial Loans[31], Agricultural loans[32], and Total Loans and Leases.[33] These data can be combined to give the dependent variables:

* commercial and industrial as a percent of total loans and leases, and
* commercial and industrial plus agricultural as a percent of total loans and leases in nonmetropolitan areas.

In these data, all loans and other assets of branches are reported only for headquarters offices. Loans made by nonmetropolitan branches, therefore, are reported in the data for

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[31] RCON 1766, line 4, Schedule RC-C, of the Consolidated Report of Income, FDIC, for June 30, 1987 and June 30, 1984.

[32] Ibid., RCON 1590.

[33] Ibid., RCON 2122.

the headquarters bank that often is located in a metropolitan area. The value of the dependent variable, then, is the ratio of commercial lending to total lending for unit banks or headquarter banks in the county or MSA.

Internal variables - The non-policy internal explanatory variables are generated from data about the structure and internal operation of the banking industry. The data collected by county (MSA) and state include:

* total liabilities,
* total non-transaction accounts,
* total transaction accounts,
* total net income,
* total assets,
* total demand deposits,
* total loans to depository institutions,[34]
* deposits of each unit bank and branch bank office, and
* total number of banks and bank offices.[35]

The internal impact of statewide branching laws is treated as a dummy variable. Branching laws are different in each state and have changed over time. A state is counted as allowing branching if statewide branching is prevalent (Idaho, Oregon, South Dakota and Washington in 1987), and as not allowing branching if unit banking is prevalent or branching is limited (Iowa, Minnesota, North Dakota, and Montana).[36] Data are grouped by MSAs and by counties. Because "limited branching" often means branching is allowed within a small geographic area or an MSA, our division of states by branching-allowed is reasonable. To the extent that limited branching means some branching across county or MSA lines, our division is incomplete.

A separate variable is used to show the economic presence or potential influence of individual branches in each market area. This variable is the share of total deposits held by branches in nonmetropolitan counties.

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[34] Ibid., item RCON 2948 (liabilities), RCON 2385 (non-transaction accounts), RCON 2215 (transaction accounts), RCON 2170 (assets), RCON 2210 (demand deposits), RIAD 4340 (net income), and RCON 1489 (loans to depository institutions).

[35] FDIC, OPERATING BANKS AND BRANCHES: DATA BOOK, Summary of Deposits in All Insured Commercial and Savings Banks and Domestic Branches of Foreign Banks, June 30, 1987 and 1984, for number of banks and banking offices in each county and total deposits for each bank and office.

[36] Data from the Conference of State Bank Supervisors, Donna Y. James, Assistant Director, Washington, D.C., July 1988.

External variables - The data used to represent external conditions include population (1986), population growth (1980-86), population density (persons per square mile, 1986), the number of households, disposable income, and retail sales, all grouped by county or MSA.[37] A dummy variable indicates whether each county is farming dependent.[38] Another dummy variable shows if a major U.S. highway or interstate runs through the county. Also, slope dummy variables are used to capture the effect of farm dependency on some of the aforementioned variables: density, retail sales per capita, population growth, savings, average assets, and loans to depository institutions.

The model

We want to show that banking activity (as measured by commercial credit) varies across regions due to both internal and external factors. To show banking activity, we use the ata set in two ways. First, we describe the spatial distribution of bank activity. Concentration ratios are computed, sorted and assembled in Table B. Also, branch share of deposit by county by state is similarly assembled. From these measures, some idea of the industry structure can be formed. Second, we attempt to analyze the spatial distribution of bank activity thruough regression analysis. From this step came a better understanding of the model and its composition.

Estimation is done using OLS regression methods to show the relationship between variations in the rate of commercial loans by units and branch headquarters occurring in non-metropolitan counties and the internal and external variables identified above. The rate of commercial lending is expected to be positively related to external variables -- population growth, population density, disposable income per capita, and retail sales per capita. Commercial lending probably is negatively related to farming dependency; however if agriculture is viewed as a rural "business" and agricultural lending is joined with commercial lending, farming dependency should be positively related.

The expected relationship between the rate of commercial lending and the internal variables is less uniform. A positive

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[37] Survey of Buying Power Data Service, SALES AND MARKETING MANAGEMENT MAGAZINE, 1987 and 1984.

[38] Farming contributed a weighted annual average of 20 percent or more to total labor and proprietor income over the five-year period from 1975 to 1979. Lloyd D. Bender et al, THE DIVERSE SOCIAL AND ECONOMIC STRUCTURE OF NONMETROPOLITAN AMERICA, USDA, Economic Research Service, Rural Development Research Report No. 49, September 1985, Figure 1, p. 4.

relationship is expected between average bank size and commercial lending, along with a negative relationship between loans to depository institutions and commercial lending. Smaller banks are believed to look for uses of their assets that are safer (including loans to other depositories) than commercial lending. While the theoretical argument about concentration or profitability and lending is not settled, the more widely accepted view is that more concentrated or profitable bank markets result from aggressive lending and are, therefore, positively related to commercial lending. The level of savings in rural banks could lead either to relatively more commercial lending (because long-term deposits imply more stable reserves and less risky lending for the bank) or relatively less commercial lending (because the bank has a greater incentive to send funds outside the market area to earn higher rates of return than are available locally).

The coefficient on the branch banking dummy variable may be negative or positive. The sign of the variable will depend on the relative strength of two possible results from branching. First, the sign could be negative if branching banks bid commercial projects away from local units, reducing the total commercial lending by units and the share of commercial loans in their portfolios. Second, branching law may be positively related to the share of commercial lending by units either (A) by stimulating more total competition and lending in the local market or (B) by causing branches to pull out of nonmetropolitan commercial lending, leaving a larger portion for unit banks.

If the sign on the branching law variable <u>is</u> positive, then the variable for the economic share of individual branches can suggest whether (A) or (B) is the better explanation and why. If the sign on the branching share variable is negative and significant, then explanation (A) is more plausible -- branch laws stimulate local lending competition so that banks tend to make more commercial loans; at the same time, branches bid some commercial customers away from units. If the branching share variable has a positive sign, this reinforces the view that branches yield their commercial lending opportunities to local unit banks.

Results --

The following discussion is divided into two parts; the first is the results of the descriptive study showing concentration in rural markets, the second is the results of the regression study supporting the hypothesis that branching laws may contribute to the availability of commercial credit in rural areas.

The eight states in our study include 409 nonmetropolitan counties (MSA numbers less than 550) and 62 additional counties

that comprise 31 separate metropolitan statistical areas. Of the nonmetropolitan counties, most have fewer than 7 banks or bank offices and 15 is the largest number of banks in any nonmetropolitan county (Freeborn County, Minnesota).

Concentration

When banking activity is measured by deposits and the local market is defined as the county, the Herfindahl Index shows that only two nonmetropolitan counties are unconcentrated in the 8 state area. These are Renville County, Minnesota and Benton County, Iowa.[39] Twenty-one additional nonmetropolitan counties in Minnesota are moderately concentrated, along with twenty-two in Iowa, one in Montana, one in Oregon, and one in South Dakota. All other nonmetropolitan counties are highly concentrated, indicating that relatively few banks in each county command relatively large shares of total bank deposits. This result may be due to either sparse population (i.e., the county cannot support more than a few banks) or from an anti-competitive climate.

Many of the metropolitan statistical areas also are concentrated by deposits, including Boise in Idaho; Cedar Rapids, Davenport-Rock Island-Moline, Dubuque, Iowa City, Sioux City in Iowa (and adjoining states for some MSAs); Great Falls in Montana; Bismarck and Grand Forks in North Dakota; Eugene-Springfield and Medford in Oregon; Rapid City and Sioux Falls in South Dakota; and Vancouver, Olympia, and Tacoma in Washington.

Four states have moderately concentrated MSAs; Des Moines and Waterloo-Cedar Falls in Iowa, Duluth-Superior in Minnesota, Billings in Montana, Portland and Salem in Oregon, and Bellingham, Bremerton, Richland-Kennewick-Pasco, Seattle, Spokane, and Yakima in Washington. Only three MSAs have Herfindahl Indices indicating unconcentrated markets -- Fargo-Moorhead, St. Cloud, and Minneapolis-St. Paul in Minnesota. These data, along with the number of banks in each county and a definition of the Herfindahl Index, are contained in Appendix B.

If the geographic market area is defined by county (or MSA), the Herfindahl indices show that in most nonmetropolitan (and metropolitan) counties, relatively few banks could exercise a large share of market power. In reality, however, the market area is probably larger, particularly in rural communities, since banking activity (deposits and lending) is probably not confined to the county. Presumably a smaller Herfindahl would result, suggesting less concentration than measured in Appendix B.

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[39] Hyde County, SD shows no deposits from one bank for this year, with Herfindahl of 0.

To the extent that rural markets actually are less competitive due to high market concentration, there could be some impact on the level of commercial lending. However, competition may not be diminished and there may be little or no impact on commercial lending, due to the potential for entry by new banks or banking offices. That is, the possibility of entry should reduce the threat of "monopoly" power, even if new competitors never actually enter the market.

Branch Share of deposits

The percentage of total deposits attributable to deposits in branches is reported in Appendix C for each county in six states. In the unlimited branching states of South Dakota, Oregon, and Washington these shares are generally larger than for North Dakota, Minnesota, and Montana. (Iowa and Idaho are not included in these data.) The share of deposits held by branches is the only available data to describe banking activity by location; data are available on deposits per bank or banking office by location. No regularly collected data are available on lending and other activities of individual branches at different locations; these data are recorded at the location of the headquarter's office of the branching firm.[40]

Regression summary

Many regressions were tried using the two dependent variables in the two regional designations (MSAs vs. other areas). Some variables were eliminated from these runs. This was done when both

1. the t-statistics were insignificant at the 95% level and
2. the remaining variables produced virtually the same model after the insignificant variable was dropped.

In light of the possibility of an omitted variable bias, the final regressions may overstate the true relationships between the variables. However, the regression exercise is useful in that it provides insight into the relative strengths and interplay between the variables.

The presence of statewide branch banking is positively associated with a greater share of commercial loans in the equation for each of three dependent variables --

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[40]Some branching is allowed in Minnesota and North Dakota, giving rise to branch share figures in some counties. Montana is the only state with prevalent unit banking: only one bank with one branch exists in the state.

1) the share of commercial-industrial loans (hereafter referred to as commercial) in total loans and leases by unit and branch headquarters banks in nonmetropolitan counties,

2) the share of commercial loans in metropolitan areas, and

3) the share of commercial-plus-agricultural loans in nonmetropolitan areas.

Further, the percent of all deposits held by branches in nonmetropolitan counties of six states is negatively associated with number 3) above. These findings suggest that branching increases competitive lending activity among local banks, both units and branches.

The results of the four equations are shown in Table 2. Table 3 identifies each variable used. A summary of descriptive information on the variables is contained in Appendix D.

BRANCH LAW is a dummy variable bearing the value 1 in counties and MSAs of states with unlimited branching. In Table 2, equations III and IV for commercial-plus-agriculture in nonmetropolitan areas, BRANCH LAW is significant beyond the 95 percent level. In the regression equations for commercial only, the t-statistic for BRANCH LAW is less significant at the 90 percent or better level. BRANCH SHARE, included in regression equation IV, shows the percentage of all deposits made to branches in nonmetropolitan counties. The t-ratio on BRANCH SHARE is significant at the 90 percent or better level.

The equations account for different percentages of the variation in the dependent variables. Adjusted R^2 values are 13.6% (commercial, nonmetropolitan), 18.0% (commercial, metropolitan), 34.1% (commercial-plus-agriculture, nonmetropolitan), and 45.1% (commercial-plus-agriculture, nonmetropolitan in 6 states). In each case the F statistic is strong and rejects the hypothesis that the equation has zero explanatory power.

The most promising regression model is equation IV, Commercial-plus-Agricultural Loans, Nonmetropolitan Areas, 6 States. In this model, BRANCH LAW increases the share of commercial-plus-agriculture loans for local unit banks while the relative economic presence of local branches (BRANCH SHARE) is seen to soften somewhat the effect of branching laws. The result is consistent with the argument made earlier that unlimited branching stimulates competition and business lending in local nonmetropolitan areas; local branches draw some of this increase in local activity away from local unit banks. Equation IV also reports statistical significance for SAVINGS, an internal variable, and for two external variables, DENSITY and FARM.

SAVINGS is the only internal variable that shows up as significant in all four equations. This tends to confirm the argument that when banks have more stable deposits, they are more willing to make commercial loans that can involve higher risk and longer time commitments than some other loans. The magnitude and direction of the coefficient for SAVINGS are roughly equal for equations II, III, and IV, nonmetropolitan areas (in commercial-plus-agricultural loans) and metropolitan areas (in commercial loans). When only commercial loans are considered in nonmetropolitan areas, however, the coefficient for savings becomes much smaller. Additionally, FMxSAVINGS is significant and negative. One possible explanation is that in farm-dependent counties, stable deposits encourage agricultural loans at the expense of commercial loans. It may also be that, given the seasonal nature of farm income, banks in agricultural areas view savings as less stable than banks in other areas. On balance, SAVINGS has a positive effect although this impact is dampened in farm dependent counties.

Several external variables may play a role in the share of commercial lending. These include access to highways (ROADS), farm-dependency (FARM), population density (DENSITY), and retail sales per capita (RETAIL). In equation I, rural counties with a major highway show more commercial lending, reflecting the significance of access to markets -- perhaps commercial proposals are easier and cheaper for unit banks to evaluate if access to markets for commercial activity is relatively easy. In III and IV, farm-dependent nonmetropolitan counties have more commercial-plus-agriculture lending than nonfarm-dependent counties. This supports the argument that rural banks lend in local (county) markets. Population density in farm counties enters differently for commercial than for commercial-plus-agriculture loan shares. Higher density in farm counties is associated with more commercial lending by unit banks in equation I, as expected. In III and IV, however, density for all nonmetropolitan counties and for the subset of farm-dependent counties show up as negative for commercial-plus-agriculture lending. This may capture the effect of agricultural lending -- more dense population means relatively less agricultural activity and lending. In metropolitan areas, equation II, retail sales per capita are positively associated with the share of commercial lending, implying that MSAs with more retail/commercial activity also have banks making more commercial loans.

III. CONCLUSIONS

Laws permitting unlimited branching tend to increase the share of commercial lending by unit banks and branch headquarters in both nonmetropolitan and metropolitan markets. In each of four regression results in Table 2 above, branch banking makes a positive and significant contribution to the share of commercial loans. The fourth equation adds a variable to measure actual activity of branches in local markets; the results allow us to argue that local branches enhance local commercial-plus-agricultural lending and possibly bid some commercial customers away from local unit banks.

These results, of course, do not prove that branching will increase commercial loans in nonmetropolitan areas. Rather they imply that such has been the case in the past. If limited branching states convert to unlimited branching in the future, the results may not be the same as those of the past. However, the literature and the examination of data in this study together suggest that, in a conversion to unlimited branching, there is reason to watch for the following outcomes:

* some <u>very</u> small unit banks may be taken over by more cost-effective branches,
* some other banks may become branches through mergers, especially in areas where relatively more deposits are available,
* nonmetropolitan branches and unit banks may be somewhat more willing to consider local commercial lending opportunities, and
* the possibility of entry by branches may encourage more efficiency or more lending activity in nonmetropolitan areas, even if entry by branches does not occur.

TABLE 1

CLASSIFICATION OF STATES ACCORDING TO TYPES OF BRANCHING PREVALENT, June 30, 1988[1]

STATEWIDE BRANCH BANKING PREVALENT	LIMITED BRANCH BANKING PREVALENT	UNIT BANKING PREVALENT
Alabama	Arkansas	Colorado
Alaska	Florida	Montana
Arizona	Georgia	Wyoming
California	Illinois	
Connecticut	Indiana	
Delaware	Iowa	
District of Columbia	Kansas	
Guam	Kentucky	
Hawaii	Louisiana	
Idaho	Minnesota	
Maine	Mississippi	
Maryland	Missouri	
Massachusetts	Nebraska	
Michigan	New Mexico	
Nevada	North Dakota	
New Hampshire	Ohio	
New Jersey	Oklahoma	
New York	Pennsylvania	
North Carolina	Texas	
Oregon	Wisconsin	
Puerto Rico		
Rhode Island		
South Carolina		
South Dakota		
Tennessee		
Utah		
Vermont		
Virginia		
Washington		
West Virginia		

This classification is made for the purpose of discussing changes in the banking structure and is based on the type of banking seemingly prevalent in each state and not necessarily on the current status of legal provisions.

[1] Conference of State Bank Supervisors, Donna Y. James Assistant Director, Washington D.C., July 1988.

TABLE 2: BEST REGRESSION RESULTS TO EXPLAIN THE SHARE OF COMMERCIAL LENDING IN TOTAL LOANS AND LEASES

I. COMMERCIAL LOANS: NONMETROPOLITAN COUNTIES, 8 STATES

Variable	Coefficient	t-statistic	
Constant	0.103	2.65*	
SAVINGS	0.177	3.28*	
BRANCH LAW	0.0260	1.86**	
ROADS	0.0229	2.64*	
FMxDENSITY	0.00177	2.34*	$Adj R^2$ = 13.6% F = 12.49
FMxSAVINGS	-0.139	-5.98*	n = 366

II. COMMERCIAL LOANS: METROPOLITAN STATISTICAL AREAS, 8 STATES

Constant	-0.368	-1.73**	
BRANCH LAW	0.0625	1.83**	
SAVINGS	0.6235	3.08*	$Adj R^2$ = 18.0% F = 3.26
RETAIL	0.0000417	2.48*	n = 32

III. COMMERCIAL-PLUS-AGRICULTURE LOANS:NONMETRO COUNTIES, 8 STATES

Constant	0.0512	1.05	
DENSITY	-0.000263	-1.85**	
SAVINGS	0.558	8.25*	
BRANCH LAW	0.0833	4.68*	
FARM	0.181	8.67*	$Adj R^2$ = 34.1% F = 38.83
FMxDENSITY	-0.00347	-3.63*	n = 366

IV. COMMERCIAL-PLUS-AGRICULTURE LOANS:NONMETRO COUNTIES, 6 STATES

Constant	0.0949	1.88**	
DENSITY	-0.00171	-4.54*	
SAVINGS	0.553	8.24*	
BRANCH LAW	0.112	4.97*	
FARM	0.125	6.81*	$Adj R^2$ = 45.1% F = 43.92
BRANCH SHARE	-0.0595	-1.83**	n = 261

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* significant at the 95% confidence level or better.

** significant at the 90% confidence level or better.

TABLE 3: VARIABLES USED IN THE REGRESSION EQUATIONS IN TABLE 2

Variable	MEANS:	Metro	Nonmetro	Overall
COMMERCIAL LOANS[1]		.2724	.2100	.2148
COMMERCIAL-PLUS -AGRICULTURE LOANS[2]			.5270	
SAVINGS[3]		.5910	.6925	.6846
DENSITY[4]		171.4	21.7	33.9
RETAIL[5]		5674	4658	4742
DUMMY VARIABLES:	BRANCH LAW[6]	FARM[7]	ROADS[8]	
SLOPE VARIABLES:	FMxSAVINGS[9]	FMxDENSITY[10]		

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[1] Commercial and Industrial Loans / Total Loans and Leases in a SMSA or a nonmetropolitan county.

[2] Commercial and Industrial plus Agricultural Loans/ Total Loans and Leases in each nonmetropolitan county.

[3] Total Nontransactions Accounts / Total Liabilities in each SMSA and nonmetropolitan county.

[4] Population per square mile in each SMSA and nonmetropolitan county.

[5] Retail Sales / Population in each SMSA and nonmetropolitan county.

[6] A dummy variable with the value of 1 for counties and SMSAs in states with unlimited branching.

[7] A dummy variable with the value of 1 for farm-dependent counties in nonmetropolitan areas.

[8] A dummy variable with the value of 1 for an SMSA or nonmetropolitan county containing a major U.S. highway.

[9] The value of SAVINGS in FARM (farm-dependent nonmetropolitan counties).

[10] The value of DENSITY in FARM (farm-dependent nonmetropolitan counties).

APPENDIX A

(From Conference of State Bank Supervisors, Donna Y. James, Assistant Director, Washington D.C., July 1988.)

GEOGRAPHIC RESTRICTIONS ON BRANCHING

Idaho — Statewide Branching.

Iowa — Branching specifically prohibited; however, banks may operate up to 5 full-service facilities within the municipal corporation or urban complex in which the principal office is located if the municipal corporation or urban complex has a population of over 200,000; 4 such facilities if the population is over 100,000 but less than 200,000; and 3 such facilities if the population is less than 100,000. Full service office facilities are also permitted outside the municipal corporation or urban complex in which the principal office is located provided they are in the same county or in a contiguous county.

Minnesota — Limited Branching. Full service detached facilities are permitted. Any bank, savings banks, and trust company is permitted five detached facilities. They may be located anywhere in the municipality in which the principal office is located; or within 100 miles of its principal office, but within another municipality. A bank may also have 1 detached drive-in facility within 1,500 feet of its main office or 1 of its detached facilities. If the municipality location, other than that which contains the principal office, has population of 10,000 or less based upon the last federal census, existing banks must provide consent in writing to the establishment of the facility. 8/1/87 amendments allow banks to operate unlimited number of branches in Minneapolis-St. Paul. No limitations on mergers and consolidations.

Montana — Branching prohibited; a facility is permitted provided it is located within 1000 feet of a bank's principal office, and is not closer than 200 feet to a facility of another bank nor 300 feet to a facility of another bank nor 300 feet to another bank's principal office.

North Dakota — Branching is prohibited. A bank may establish paying and receiving stations within the county in which its home office is located or in any adjoining county with a 35 mile radius, provided that no such station may be established in any city or town with an established banking institution located therein. Every bank under the supervision of the state banking board, and any

national bank doing business in the state, may, upon compliance, maintain and operate separate and apart from its banking house one facility for drive-in and walk-up service, in addition to such service at its main banking house, and at its paying and receiving station, if any.

The facility shall be within the corporate city limits of the main banking house or within three miles of such city but shall not be within the corporate limits of another city.

One additional separate drive-in and walk-up facility may be maintained and operated not more than 1,500 feet from its main banking house by any bank that does not have a drive-in facility at its main banking house.

Oregon — Statewide branching.

South Dakota
Statewide branching.

Washington
Statewide branching.

Appendix B - Herfindahl Indices

Unconcentrated (HHI < 1000)

MSA/County	Herfindahl	State	County Name	County Total Banks
101	955	IA	Benton	13
184	967	MN	Renville	13
357	0	SD	Hyde	1
2520	914	ND	Cass	17
		MN	Clay	10
5120	748	MN	Anoka	17
		MN	Carver	11
		MN	Chisago	8
		MN	Dakota	25
		MN	Hennepin	69
		MN	Isanti	4
		MN	Ramsey	35
		MN	Scott	9
		MN	Washingto	15
		MN	Wright	14
6980	530	MN	Benton	5
		MN	Sherburne	5
		MN	Stearns	27

Moderate concentration (1000 < HHI < 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
14	1742	MT	Flathead	10
98	1781	IA	Allamakee	6
105	1393	IA	Butler	8
106	1435	IA	Calhoun	8
107	1546	IA	Carroll	9
113	1380	IA	Clayton	9
115	1664	IA	Crawford	9
122	1653	IA	Fayette	9
125	1776	IA	Fremont	7
126	1782	IA	Greene	8
127	1615	IA	Grundy	7
128	1735	IA	Guthrie	7
131	1689	IA	Hardin	10
132	1493	IA	Harrison	9
142	1355	IA	Keokuk	9
143	1449	IA	Kossuth	10
144	1396	IA	Lee	8
154	1760	IA	Monona	9
159	1485	IA	Obrien	8
162	1612	IA	Plymouth	9
167	1267	IA	Sioux	12

Moderate concentration (1000 < HHI < 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
169	1433	IA	Tama	10
174	1660	IA	Washingto	9
183	1283	MN	Redwood	13
188	1621	MN	Sibley	7
191	1731	MN	Swift	7
194	1780	MN	Wabasha	7
197	1323	MN	Watonwan	9
206	1096	MN	Otter Tai	15
212	1619	MN	Blue Eart	12
213	1394	MN	Brown	10
219	1688	MN	Crow Wing	11
222	1063	MN	Faribault	13
223	1063	MN	Fillmore	13
224	1350	MN	Freeborn	15
225	1165	MN	Goodhue	13
226	1541	MN	Grant	7
227	1689	MN	Houston	7
238	1123	MN	Le Seuer	10
242	1580	MN	Marshall	8
243	1344	MN	Martin	12
244	1789	MN	McLeod	9
245	1723	MN	Meeker	8
251	1566	MN	Nobles	9
317	1730	SD	Turner	6
363	1759	OR	Lincoln	7
860	1287	WA	Whatcom	12
880	1715	MT	Yellowstone	14
2120	1268	IA	Dallas	7
		IA	Polk	18
		IA	Warren	4
8920	1439	IA	Black Hawk	8
		IA	Bremer	9
2240	1231	MN	St. Louis	26
6440	1548	OR	Clackamas	10
		OR	Multnomah	9
		OR	Washington	9
		OR	Yamhill	7
7080	1633	OR	Marion	11
		OR	Polk	6
1150	1457	WA	Kitsap	12
6740	1230	WA	Benton	7
		WA	Franklin	5

Moderate concentration (1000 < HHI < 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
7600	1420	WA	King	27
		WA	Snohomish	16
7840	1566	WA	Spokane	11
9260	1479	WA	Yakima	9

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
1	5146	MT	Beaverhead	2
2	5469	MT	Big Horn	2
3	3417	MT	Blaine	3
4	10000	MT	Broadwater	1
5	3677	MT	Carbon	3
6	10000	MT	Carter	1
7	3728	MT	Chouteau	3
8	3876	MT	Custer	3
9	10000	MT	Daniels	1
10	3494	MT	Dawson	4
11	5104	MT	Deer Lodge	2
12	5001	MT	Fallon	2
13	4011	MT	Fergus	4
15	2420	MT	Gallatin	9
16	10000	MT	Garfield	1
17	5422	MT	Glacier	2
18	10000	MT	Granite	1
19	3573	MT	Hill	4
20	5214	MT	Jefferson	2
21	10000	MT	Judith Basin	1
22	2728	MT	Lake	5
23	3299	MT	Lewis&Clark	6
24	10000	MT	Liberty	1
25	7143	MT	Lincoln	2
26	3727	MT	Madison	3
27	10000	MT	McCone	1
28	10000	MT	Meagher	1
29	10000	MT	Mineral	1
30	2715	MT	Missoula	8
31	5129	MT	Musselshead	2
32	4180	MT	Park	3
33	6129	MT	Phillips	2
34	5937	MT	Pondera	3
35	10000	MT	Powder River	1
36	5000	MT	Powell	2
37	10000	MT	Prairie	1
38	2970	MT	Ravalli	4
39	3221	MT	Richland	4

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
40	2331	MT	Roosevelt	5
41	4371	MT	Rosebud	4
42	5003	MT	Sanders	2
43	5239	MT	Sheridan	2
44	3132	MT	Silver Bow	5
45	4066	MT	Stillwater	3
46	5986	MT	Sweet Grass	2
47	3683	MT	Teton	3
48	5000	MT	Toole	2
49	10000	MT	Treasure	1
50	3792	MT	Valley	4
51	10000	MT	Wheatland	1
52	10000	MT	Wilbaux	1
53	8766	ID	Adams	2
54	2449	ID	Bannock	7
55	4085	ID	Bear Lake	3
56	4742	ID	Benewah	3
57	2504	ID	Bingham	5
58	4898	ID	Blaine	3
59	10000	ID	Boise	1
60	3441	ID	Bonner	5
61	2061	ID	Bonneville	7
62	4002	ID	Boundary	3
63	7565	ID	Butte	2
64	10000	ID	Camas	1
65	2973	ID	Canyon	5
66	6126	ID	Caribou	2
67	2363	ID	Cassia	6
68	10000	ID	Clark	1
69	5722	ID	Clearwater	2
70	5049	ID	Custer	2
71	3592	ID	Elmore	3
72	4361	ID	Franklin	3
73	5269	ID	Fremont	2
74	4466	ID	Gem	3
75	2564	ID	Gooding	5
76	3426	ID	Idaho	3
77	4186	ID	Jefferson	4
78	3776	ID	Jerome	3
79	2646	ID	Kootenai	5
80	2899	ID	Latah	5
82	5929	ID	Lewis	2
83	6194	ID	Lincoln	2
84	3669	ID	Madison	4
85	3558	ID	Minidoka	3
86	2727	ID	Nez Perce	6
87	5294	ID	Oneida	2
88	8580	ID	Owyhee	2
89	2742	ID	Payette	4
90	4105	ID	Power	3
91	3587	ID	Shoshone	3

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
92	10000	ID	Teton	1
93	2791	ID	Twin Falls	6
94	5139	ID	Valley	2
95	3792	ID	Washington	5
96	2573	IA	Adair	5
97	7459	IA	Adams	2
99	5057	IA	Appanoose	3
100	3624	IA	Audubon	3
102	2837	IA	Boone	4
103	2334	IA	Buchanan	8
104	2225	IA	Buena Vista	9
108	2379	IA	Cerro Gordo	9
109	2722	IA	Cherokee	7
111	7943	IA	Clarke	2
112	1804	IA	Clay	7
114	1984	IA	Clinton	9
116	5311	IA	Davis	3
117	5434	IA	Decatur	2
118	1813	IA	Delaware	7
119	2228	IA	Des Moines	6
120	2109	IA	Dickinson	5
121	4106	IA	Emmet	3
123	3313	IA	Floyd	4
124	2826	IA	Franklin	6
129	3046	IA	Hamilton	6
130	2492	IA	Hancock	6
133	2862	IA	Henry	7
134	3305	IA	Howard	5
135	4632	IA	Humboldt	3
136	3593	IA	Ida	4
137	1828	IA	Iowa	7
138	2242	IA	Jackson	8
139	2093	IA	Jasper	9
140	3371	IA	Jefferson	4
141	4214	IA	Jones	6
145	2519	IA	Louisa	5
146	5407	IA	Lucas	3
147	2073	IA	Lyon	6
148	3398	IA	Madison	3
149	2972	IA	Mahaska	5
150	2148	IA	Marion	6
151	2593	IA	Marshall	8
152	3781	IA	Mills	4
153	2536	IA	Mitchell	5
155	6574	IA	Monroe	3
156	3207	IA	Montgomery	4
157	2909	IA	Muscatine	6
158	2096	IA	Osceola	5
160	2042	IA	Page	5
161	1991	IA	Palo Alto	6
163	1978	IA	Pocahontas	6

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
164	2259	IA	Poweshiek	7
165	6282	IA	Ringgold	3
166	3057	IA	Shelby	6
168	1893	IA	Story	12
170	3390	IA	Taylor	3
171	4083	IA	Union	4
172	3198	IA	Van Buren	4
173	3832	IA	Wapello	3
175	3918	IA	Wayne	3
176	2879	IA	Webster	6
177	2608	IA	Winnebago	6
178	3177	IA	Winneshiek	6
179	3768	IA	Worth	4
180	1890	IA	Wright	7
181	2955	MN	Aitkin	4
182	4186	MN	Red Lake	3
185	1827	MN	Rice	9
186	2246	MN	Rock	6
187	3501	MN	Roseau	4
189	2576	MN	Steele	8
190	2931	MN	Stevens	5
192	2531	MN	Todd	6
193	4668	MN	Traverse	3
195	2342	MN	Wadena	5
196	2183	MN	Waseca	6
198	3409	MN	Wilkin	5
199	2139	MN	Winona	10
200	1862	MN	Yellow Medicine	7
201	2388	MN	Pope	5
202	1939	MN	Polk	10
203	3063	MN	Pipestone	5
204	1960	MN	Pine	6
205	4983	MN	Pennington	3
207	2945	MN	Olmsted	7
208	1811	MN	Norman	7
209	3060	MN	Becker	8
210	3710	MN	Beltrami	5
211	2329	MN	Big Stone	5
214	3686	MN	Carlton	4
215	2855	MN	Cass	6
216	3486	MN	Clearwater	3
217	10000	MN	Cook	1
218	1957	MN	Cottonwood	6
220	2285	MN	Dodge	5
221	2253	MN	Douglas	10
228	3844	MN	Hubbard	4
?29	2347	MN	Itasca	10
230	2091	MN	Jackson	7
232	3875	MN	Kanabec	3
233	5247	MN	Kittson	3
234	4275	MN	Koochiching	3

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
235	2463	MN	Lac qui parle	5
236	5469	MN	Lake	2
237	10000	MN	Lake of the wood	1
239	2589	MN	Lincoln	4
240	1997	MN	Lyon	8
241	5031	MN	Mahnomen	2
246	2788	MN	Mille Lacs	6
247	2053	MN	Morrison	8
248	2158	MN	Mower	12
249	1966	MN	Murray	6
250	2173	MN	Nicollet	7
252	6493	ND	Renville	2
253	2679	ND	Richland	5
254	3645	ND	Roulette	3
255	5489	ND	Sargent	2
256	5172	ND	Sheridan	2
257	10000	ND	Sioux	1
258	2463	ND	Stark	6
259	3890	ND	Steele	3
260	3095	ND	Stutsman	7
261	5189	ND	Towner	2
262	2149	ND	Traill	6
263	2695	ND	Walsh	6
264	2253	ND	Ward	6
265	3138	ND	Wells	5
266	3365	ND	Williams	5
267	3666	ND	Ransom	3
268	2908	ND	Ramsey	6
269	5231	ND	Pierce	2
270	2159	ND	Pembina	7
271	10000	ND	Oliver	1
272	2038	ND	Nelson	6
273	3373	ND	Mountrail	3
274	3458	ND	Morton	6
275	5094	ND	Adams	2
276	2371	ND	Barnes	6
277	3399	ND	Benson	3
278	10000	ND	Billings	1
279	4056	ND	Bottineau	5
280	5687	ND	Bowman	2
281	4265	ND	Burke	3
282	3722	ND	Cavalier	3
283	5004	ND	Dickey	2
284	6715	ND	Divide	2
285	5141	ND	Dunn	2
286	7178	ND	Eddy	2
287	4022	ND	Emmons	3
288	5843	ND	Foster	2
289	7079	ND	Golden Valley	2
290	3385	ND	Grant	3
291	3395	ND	Griggs	3

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total	Banks
292	3945	ND	Hettinger	3	
293	5160	ND	Kidder	2	
294	2704	ND	LaMoure	5	
295	3436	ND	Logan	4	
296	3251	ND	McHenry	4	
297	5462	ND	McIntosh	2	
298	6423	ND	McKenzie	2	
299	2011	ND	McLean	8	
300	4310	ND	Mercer	3	
301	5154	SD	Aurora	2	
302	3432	SD	Beadle	5	
303	10000	SD	Bennett	1	
304	2732	SD	BonHomme	5	
306	2931	SD	Brown	8	
307	6248	SD	Moody	2	
308	5609	SD	Perkins	2	
309	5072	SD	Potter	2	
310	2517	SD	Roberts	5	
311	5121	SD	Sanborn	2	
312	2068	SD	Spink	8	
313	10000	SD	Stanley	1	
314	5118	SD	Sully	2	
315	10000	SD	Todd	1	
316	3839	SD	Tripp	3	
318	3604	SD	Union	3	
319	3596	SD	Walworth	3	
320	2857	SD	Yankton	5	
321	10000	SD	Ziebach	1	
322	4148	SD	Miner	3	
323	10000	SD	Mellette	1	
324	4104	SD	Meade	3	
325	2826	SD	Marshall	4	
326	5557	SD	McPherson	2	
327	3450	SD	McCook	4	
328	5242	SD	Lyman	2	
329	2576	SD	Lincoln	5	
330	5180	SD	Lawrence	4	
331	5060	SD	Brule	2	
332	3520	SD	Butte	4	
333	10000	SD	Campbell	1	
334	2962	SD	Charles Mix	5	
335	5020	SD	Clark	3	
336	3485	SD	Clay	5	
337	4488	SD	Codington	4	
338	5030	SD	Corson	2	
339	8032	SD	Custer	2	
340	4274	SD	Davison	3	
341	3980	SD	Day	4	
342	6372	SD	Deuel	2	
343	5118	SD	Dewey	2	
344	5122	SD	Douglas	2	

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
345	2876	SD	Edmunds	4
346	4042	SD	Fall River	3
347	5642	SD	Faulk	2
348	4396	SD	Grant	3
349	5130	SD	Gregory	2
350	8304	SD	Haakon	2
351	2591	SD	Hamlin	4
352	10000	SD	Hand	2
353	3507	SD	Hanson	3
354	10000	SD	Harding	1
355	3029	SD	Hughes	4
356	2329	SD	Hutchinson	6
358	10000	SD	Jackson	1
359	10000	SD	Jerauld	1
360	4188	SD	Jones	3
361	2515	SD	Kingsbury	5
362	3980	SD	Lake	5
364	3203	OR	Linn	5
365	4848	OR	Malheur	3
366	3932	OR	Morrow	3
367	10000	OR	Sherman	1
368	4281	OR	Tillamook	4
369	2283	OR	Umatilla	5
370	4390	OR	Union	3
371	3799	OR	Wallowa	3
372	3640	OR	Wasco	4
373	10000	OR	Wheeler	1
374	4861	OR	Baker	3
375	2580	OR	Benton	6
376	3638	OR	Clatsop	3
377	3503	OR	Columbia	5
378	2377	OR	Coos	5
379	3832	OR	Crook	4
380	3180	OR	Curry	4
381	2840	OR	Deschutes	7
382	2221	OR	Douglas	6
383	5128	OR	Gilliam	2
384	5109	OR	Grant	2
385	6800	OR	Harney	2
386	4085	OR	Hood River	3
387	4263	OR	Jefferson	3
388	2081	OR	Josephine	8
389	3164	OR	Klamath	4
390	5357	OR	Lake	2
391	7329	WA	San Juan	2
392	2079	WA	Skagit	9
393	10000	WA	Skamania	1
394	3479	WA	Stevens	3
395	10000	WA	Wahkiakum	1
396	3161	WA	Walla Walla	7
397	1900	WA	Whitman	11

High concentration (HHI > 1800)

MSA/County	Herfindahl	State	County Name	County Total Banks
398	4527	WA	Pend Oreille	3
399	2654	WA	Pacific	4
400	2328	WA	Adams	6
401	5146	WA	Asotin	2
402	2450	WA	Chelan	6
403	3599	WA	Clallam	4
404	5352	WA	Columbia	2
405	1961	WA	Cowlitz	7
406	2441	WA	Douglas	6
407	10000	WA	Ferry	1
408	5001	WA	Garfield	2
409	1941	WA	Grant	7
410	1862	WA	Grays Harbor	9
411	2635	WA	Island	5
412	5455	WA	Jefferson	2
413	2424	WA	Kittitas	5
414	4887	WA	Klickitat	3
415	2071	WA	Lewis	8
416	2299	WA	Lincoln	5
417	3777	WA	Mason	5
418	2424	WA	Okanogan	5
1080	3187	ID	Ada	7
1360	2049	IA	Linn	18
1960	3884	IA	Scott	13
2200	2212	IA	Dubuque	10
3500	2585	IA	Johnson	8
5920	2395	IA	Pottawatamie	10
7720	1913	IA	Woodbury	16
3040	2134	MT	Cascade	9
1010	3148	ND	Burleigh	6
2985	2336	ND	Grand Forks	8
2400	2494	OR	Lane	13
4890	2527	OR	Jackson	8
6660	3299	SD	Pennington	7
7760	3543	SD	Minnehaha	12
5910	2245	WA	Thurston	9
8200	2083	WA	Pierce	18
8725	2222	WA	Clark	7

Appendix C - Branch share of total deposits for 6 states

State	County	Msa number	County Total deposit	Branch share Total deposit
SD	Aurora	301	46202	0
SD	Beadle	302	205730	0.530544
SD	Bennett	303	14203	0
SD	BonHomme	304	64977	0.186604
SD	Brookins	305	206833	0.137478
SD	Brown	306	372319	0.907885
SD	Brule	331	85178	0.445009
SD	Butte	332	95611	0.867693
SD	Campbell	333	21260	0
SD	Charles Mix	334	104479	0.380344
SD	Clark	335	49258	1
SD	Clay	336	88959	1
SD	Codington	337	184549	1
SD	Corson	338	19932	0.460967
SD	Custer	339	20149	0.076778
SD	Davison	340	186209	0.497269
SD	Day	341	66770	0.111981
SD	Deuel	342	43144	0
SD	Dewey	343	26203	0
SD	Douglas	344	36536	1
SD	Edmunds	345	44669	0
SD	Fall River	346	49913	1
SD	Faulk	347	24898	0
SD	Grant	348	88424	0.393105
SD	Gregory	349	83478	1
SD	Haakon	350	47426	0.093577
SD	Hamlin	351	49092	0.216776
SD	Hand	352	30142	0
SD	Hanson	353	37212	0.731860
SD	Harding	354	15537	0
SD	Hughes	355	139513	0.695956
SD	Hutchinson	356	150254	0.091065
SD	Hyde	357	0	0
SD	Jerauld	359	37336	1
SD	Jones	360	21174	0.668036
SD	Kingsbury	361	79555	0.355401
SD	Lake	362	100516	1
SD	Lawrence	330	144636	0.897127
SD	Lincoln	329	79745	0.058787
SD	Marshall	325	42906	0.396471
SD	McCook	327	57001	0.296363
SD	McPherson	326	33225	0
SD	Meade	324	87123	0.312787
SD	Miner	322	25861	0.434089
SD	Minnehaha	7760	2969503	0.210896
SD	Moody	307	44732	0.250223
SD	Pennington	6660	438890	0.834070
SD	Perkins	308	79398	0.325436
SD	Potter	309	49096	0.560004

State	County	Msa number	County Total deposit	Branch share Total deposit
SD	Roberts	310	83762	0.353955
SD	Sanborn	311	24713	0.422085
SD	Spink	312	116375	0.661868
SD	Stanley	313	11400	0
SD	Sully	314	22048	0.423031
SD	Tripp	316	102006	0.691449
SD	Turner	317	90083	0.484863
SD	Union	318	91040	0.230744
SD	Walworth	319	96559	0.605609
SD	Yankton	320	174305	0.469343
SD	Ziebach	321	14168	0
OR	Benton	375	238272	0.612371
OR	Clackamas	6440	875339	0.890323
OR	Clatsop	376	181769	0.796087
OR	Coos	378	321382	0.964661
OR	Crook	379	75168	1
OR	Curry	380	100152	1
OR	Deschutes	381	346832	0.916247
OR	Douglas	382	478644	0.617254
OR	Gilliam	383	16639	1
OR	Hood River	386	87073	1
OR	Jackson	4890	585540	0.924756
OR	Jefferson	387	62524	0.830641
OR	Josephine	388	278559	0.905829
OR	Klamath	389	254300	0.827105
OR	Lane	2400	1082185	0.817460
OR	Lincoln	363	258735	0.333136
OR	Linn	364	358994	1
OR	Marion	7080	1271238	0.932751
OR	Multnomah	6440	4874368	0.947111
OR	Polk	7080	123486	0.852606
OR	Umatilla	369	305125	0.870046
OR	Union	370	100885	1
OR	Wallowa	371	48206	0.731693
OR	Wasco	372	158603	0.890128
OR	Washington	6440	1227013	0.921504
OR	Yamhill	6440	252058	0.913043
WA	Asotin	401	81400	0.585491
WA	Benton	6740	415892	0.966563
WA	Chelan	402	370946	0.965889
WA	Clallam	403	199549	0.868343
WA	Clark	8725	709351	0.836181
WA	Cowlitz	405	311702	0.894934
WA	Douglas	406	85255	1
WA	Franklin	6740	158745	0.829978
WA	Grant	409	276442	1
WA	Grays Harbor	410	301165	0.809436
WA	Island	411	137120	0.673424
WA	King	7600	14813020	0.974892
WA	Kitsap	1150	585159	0.708674
WA	Klickitat	414	103484	0.624627
WA	Lewis	415	303809	0.714774

State	County	Msa number	County Total deposit	Branch share Total deposit
WA	Lincoln	416	147841	0.779066
WA	Mason	417	125124	0.829792
WA	Okanogan	418	192076	0.696297
WA	Pacific	399	115303	0.720362
WA	Pend Oreille	398	43590	0.756526
WA	Pierce	8200	2803029	0.916609
WA	San Juan	391	71348	0
WA	Skagit	392	435118	0.600211
WA	Snohomish	7600	1660494	0.879649
WA	Spokane	7840	2259939	0.723611
WA	Stevens	394	127123	1
WA	Thurston	5910	511104	0.956550
WA	Walla Walla	396	307844	0.405507
WA	Whatcom	860	890316	0.760060
WA	Whitman	397	287707	0.827800
WA	Yakima	9260	848000	0.881079
ND	Adams	275	36848	0
ND	Barnes	276	144435	0.308429
ND	Benson	277	38817	0.650436
ND	Bottineau	279	126052	0.617776
ND	Bowman	280	76254	0
ND	Burke	281	40393	0.164285
ND	Burleigh	1010	440835	0
ND	Cass	2520	776084	0.013568
ND	Cavalier	282	89071	0.418295
ND	Dickey	283	59930	0
ND	Divide	284	52376	0.207175
ND	Dunn	285	27094	0
ND	Eddy	286	19561	0
ND	Emmons	287	69893	0
ND	Foster	288	61052	1
ND	Golden Valley	289	34913	0.822387
ND	Grand Forks	2985	461634	0.014916
ND	Grant	290	29536	0.326110
ND	Griggs	291	56538	0
ND	Hettinger	292	45043	0
ND	Kidder	293	37700	0.589469
ND	LaMoure	294	55025	0.223661
ND	Logan	295	53288	0.275465
ND	McHenry	296	56836	0.673323
ND	McIntosh	297	58402	0
ND	McKenzie	298	65182	0
ND	McLean	299	116304	0.211910
ND	Mercer	300	91094	0
ND	Morton	274	182079	0.282981
ND	Mountrail	273	84251	0.283272
ND	Nelson	272	88722	0.086370
ND	Oliver	271	9528	0
ND	Pembina	270	121685	0.056892
ND	Pierce	269	68879	0
ND	Ramsey	268	134003	0.463914

State	County	Msa number	County Total deposit	Branch share Total deposit
ND	Ransom	267	71967	0
ND	Renville	252	20990	0.226822
ND	Richland	253	152358	0
ND	Roulette	254	66830	0
ND	Sargent	255	47267	0
ND	Sheridan	256	26034	1
ND	Stark	258	177067	0.028480
ND	Steele	259	40063	0.191398
ND	Stutsman	260	223554	0.023587
ND	Towner	261	51800	0
ND	Traill	262	119210	0.169960
ND	Walsh	263	184045	0.753310
ND	Ward	264	438877	0.378727
ND	Wells	265	95153	0.082393
ND	Williams	266	264024	0
MN	Aitkin	181	74117	0.489523
MN	Anoka	5120	608390	0.350712
MN	Becker	209	158077	0.090740
MN	Beltrami	210	227310	0.237877
MN	Benton	6980	160642	0.043755
MN	Big Stone	211	79218	0
MN	Blue Earth	212	477301	0.112140
MN	Brown	213	340630	0.096042
MN	Carlton	214	121751	0.017100
MN	Carver	5120	292633	0.198337
MN	Cass	215	100879	0.632579
MN	Chippewa	500	181192	0
MN	Chisago	5120	141856	0.101137
MN	Clay	2520	283316	0.008178
MN	Clearwater	216	53835	0
MN	Cook	217	20110	0
MN	Cottonwood	218	144052	0.164107
MN	Crow Wing	219	344088	0.146392
MN	Dakota	5120	912300	0.103233
MN	Dodge	220	107568	0
MN	Douglas	221	259187	0.012041
MN	Faribault	222	205256	0
MN	Fillmore	223	236110	0.116674
MN	Freeborn	224	243140	0
MN	Goodhue	225	348826	0.227738
MN	Grant	226	79391	0.181922
MN	Hennepin	5120	13955087	0.165710
MN	Houston	227	133564	0
MN	Hubbard	228	91362	0.055767
MN	Isanti	5120	137800	0.335406
MN	Itasca	229	253110	0.289091
MN	Jackson	230	117065	0.245564
MN	Kanabec	232	88458	0.143469
MN	Kandiyohi	231	335483	0
MN	Kittson	233	59288	0.075006
MN	Koochiching	234	102779	0
MN	Lac qui parle	235	90250	0

State	County	Msa number	County Total deposit	Branch share Total deposit
MN	Lake	236	48747	0
MN	Lake ofthe wood	237	29575	0
MN	Le Seuer	238	212416	0
MN	Lincoln	239	51093	0.319202
MN	Lyon	240	284604	0.381786
MN	Mahnomen	241	32324	0.460741
MN	Marshall	242	113487	0.156740
MN	Martin	243	271713	0
MN	McLeod	244	304485	0.053345
MN	Meeker	245	149379	0
MN	Mille Lac	246	138849	0.470482
MN	Morrison	247	163645	0
MN	Mower	248	311570	0
MN	Murray	249	105810	0.220858
MN	Nicollet	250	177275	0.042786
MN	Nobles	251	223822	0.403418
MN	Norman	208	91421	0.211144
MN	Olmsted	207	599824	0.003077
MN	Otter Tail	206	383761	0.170462
MN	Pennington	205	113536	0.006315
MN	Pine	204	94356	0.105070
MN	Pipestone	203	106521	0.206813
MN	Polk	202	270660	0.367069
MN	Pope	201	101158	0
MN	Ramsey	5120	5598377	0.083222
MN	Red Lake	182	41229	0.645370
MN	Redwood	183	232421	0.096277
MN	Renville	184	202461	0.016427
MN	Rice	185	322845	0
MN	Rock	186	107037	0.423573
MN	Roseau	187	118971	0
MN	Scott	5120	241162	0.099153
MN	Sherburne	6980	139055	
MN	Sibley	188	127991	0
MN	St. Louis	2240	1276846	0
MN	Stearns	6980	880478	0.179185
MN	Steele	189	257018	0.001852
MN	Stevens	190	99243	0
MN	Swift	191	130619	0.249374
MN	Todd	192	153733	0.421386
MN	Traverse	193	70944	0
MN	Wabasha	194	189350	0
MN	Wadena	195	109435	0.102490
MN	Waseca	196	138781	0
MN	Washington	5120	536275	0.193184
MN	Watonwan	197	139020	0
MN	Wilkin	198	69698	0
MN	Winona	199	466414	0.000806
MN	Wright	5120	360680	0
MN	Yellow Medicine	200	111674	0
MT	Beaverhead	1	70652	0
MT	Big Horn	2	71520	0

State	County	Msa number	County Total deposit	Branch share Total deposit
MT	Blaine	3	50040	0
MT	Broadwater	4	16248	0
MT	Carbon	5	50702	0
MT	Carter	6	14574	0
MT	Cascade	3040	533860	0
MT	Chouteau	7	61267	0
MT	Custer	8	191148	0
MT	Daniels	9	23278	0
MT	Dawson	10	118230	0
MT	Deer Lodge	11	79429	0.572272
MT	Fallon	12	41829	0
MT	Fergus	13	125398	0
MT	Flathead	14	376871	0
MT	Gallatin	15	379039	0
MT	Garfield	16	14345	0
MT	Glacier	17	77504	0
MT	Granite	18	19697	0
MT	Hill	19	149093	0
MT	Jefferson	20	17671	0
MT	Judith Basin	21	17548	0
MT	Lake	22	115218	0
MT	Liberty	24	17658	0
MT	Lincoln	25	65782	0
MT	Madison	26	35230	0
MT	McCone	27	19889	0
MT	Meagher	28	16116	0
MT	Mineral	29	14207	0
MT	Missoula	30	426052	0
MT	Musselshell	31	43043	0
MT	Phillips	33	58316	0
MT	Pondera	34	73590	0
MT	Powder River	35	18778	0
MT	Powell	36	28130	0
MT	Prairie	37	27814	0
MT	Ravalli	38	151154	0
MT	Richland	39	118175	0
MT	Roosevelt	40	121518	0
MT	Rosebud	41	52734	0
MT	Sanders	42	41368	0
MT	Sheridan	43	86157	0
MT	Silver Bow	44	256659	0.246081
MT	Stillwate	45	44090	0
MT	Sweet Grass	46	37868	0
MT	Teton	47	49209	0
MT	Toole	48	98418	0
MT	Treasure	49	9058	0
MT	Valley	50	101291	0
MT	Wheatland	51	19991	0
MT	Yellowstone	880	975341	0